

WHAT IS CLAIMED IS:

1. A tuning circuit comprising a series resonance circuit, a driving circuit connected to one end thereof and a negative resistance circuit connected to the other end thereof,

    said negative resistance circuit including an inverse amplifying circuit connected to the negative resistance circuit; a non-inverse type low output impedance circuit connected to the inverse amplifying circuit; a negative feedback circuit for feeding back an output of the low output impedance circuit to an input of the inverse amplifying circuit; and

    a positive feedback circuit for feeding back the output of the low output impedance circuit to a same phase side output of the inverse amplifying circuit.

2. A tuning circuit according to claim 1 wherein said inverse amplifying circuit comprises a first transistor having a resistor in an emitter circuit thereof and said low output impedance circuit includes an emitter follower circuit having a second transistor.

3. A tuning circuit according to claim 2 wherein said negative feedback circuit is so constituted that an output of the emitter circuit of the second transistor is fed back to a base of the first transistor and the positive feedback circuit is so constituted that the output of the emitter circuit of the second transistor is fed back to an emitter of the first transistor.

4. A tuning circuit according to claim 3 wherein a bias current is supplied to said second transistor by resistor dividing and said positive feedback circuit is so constituted that the emitter of the second transistor is fed back to the emitter of the first transistor directly.

5. A tuning circuit according to claim 3 wherein the first and second transistors include emitter resistors respectively and said positive feedback circuit includes both the emitter transistors.

6. A tuning circuit according to claim 5 wherein a collector of the first transistor is coupled with a base of the second transistor directly and a capacitor is inserted into the positive feedback circuit.

7. A tuning circuit according to claim 2 wherein said positive feedback circuit is so constituted that the emitter of the second transistor is fed back to the emitter of the first transistor through a resistor and said negative feedback circuit is so constituted that the emitter of the first transistor is fed back to a base thereof.